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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/508,771	06/09/2005	Mathias Rausch	SC0983EM	7908

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EXAMINER	
GOEL, DINESH K	
ART UNIT	**PAPER NUMBER**
2419	

NOTIFICATION DATE	DELIVERY MODE
10/20/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/508,771	RAUSCH ET AL.	
	Examiner	Art Unit	
	DINESH GOEL	2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,7-9,14 and 15* is/are rejected.

7)☐ Claim(s) *3-6 and 10-13* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

The applicant argues that the limitations of the original claim 2 (which are now part of claim 1 and 9 in the amended claims) are not taught by Burr or Elahmadi et al. The examiner maintains the position that the limitations are taught by Burr modified with Elahmadi et al. The original claim 2 recited "the self-routing communication network of claim 1, wherein the frames of information each have a frame-start-sequence, and the star couplers further include means for changing the frame-start-sequence before outputting the frame such that an interconnection failure may be diagnosed by analyzing the frame-start-sequence". Although Burr teaches about the characters marking the beginning and end of a packet, which is commonly used in a wide variety of network topologies (Column 5 Line 64—Column 6 Line 6), it does not specifically teach about any unique frame start sequence which could be used for diagnosing an interconnection fault. However, Elahmadi et al teach that a specific unique bit pattern is transmitted and is identified by a switch for re-routing and connecting appropriately, as well as, for detecting communication path failure (Abstract, Column 3 Lines 35-52). It would have been obvious to a person of ordinary skill in the art that the laser transmitter which generated unique bit pattern would also

provide means for changing the bit pattern. As such, the limitations of original claim 2 would have been met by Burr modified with Elahmadi et al.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. **Claims 1, 7-9, 14, and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Burr (U.S. Patent Number 4701756) in view of Elahmadi et al (U.S. Patent Number 6292464).

Referring to claim 1, Burr teaches a self-routing communication network (Figure 5), comprising: a plurality of nodes ("6-13" in Figure 5);

a plurality of star couplers each having a plurality of inputs and a plurality of outputs ("1-5" in Figure 5);

and

communication paths coupled between the plurality of star couplers and the plurality of nodes for communication therebetween of frames of information (Figure 5), wherein

the communication paths include at least one alternative communication path (Column 5 Lines 46-48), Column 6 Lines 19-23), the star couplers each include an input detector to sense which input of the star coupler first receives a frame of information and for passing only the frame of information first received (Column 8 Lines 46-56); and.

. Burr does not specifically teach wherein the frames of information each have a frame-start-sequence, and the star couplers each further include a frame-start-sequence changer to change the frame-start-sequence before outputting the frame such that an interconnection failure is diagnosable by analyzing the frame-start-sequence.

However, Elahmadi et al teach a method of transmitting a specific bit pattern signature header unique to the transmitter which is used to configure the network and identify the status of communication path (Abstract, Column 3 Lines 35-52).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Burr with the teachings of Elahmadi et al. The motivation would have been the need for a new method and apparatus for inexpensively and easily rerouting traffic between nodes in a communication network when a given path becomes unusable (Column 1 Lines 50-55).

Referring to claim 7, Burr further teaches the self-routing communication network, wherein the network is based on a deterministic media access scheme (Column 8 Lines 49-50).

Referring to claim 8, Burr further discloses the self-routing communication network, wherein the network is arranged for real-time communication (Column 5 Lines 24-45).

Referring to claim 9, it additionally refers to a star coupler which is already taught by Burr("1-5" in Figure 5). Rest of the claim limitations correspond to claim 1.

Referring to claim 14, Burr further teaches wherein the network is based on a deterministic media access scheme (Column 8 Lines 49-50).

Referring to claim 15, Burr further teaches wherein the network is arranged for real-time communication (Column 5 Lines 24-45).

Allowable Subject Matter

3. Claims 3-6 and 10-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DINESH GOEL whose telephone number is (571)270-5201. The examiner can normally be reached on Monday-Friday 8:00 AM-5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Ryman can be reached on 571-272-3152. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dinesh Goel/
Examiner, Art Unit 2419

/Daniel J. Ryman/
Supervisory Patent Examiner, Art Unit 2419